

**Amendments to the Claims**

1. (Currently Amended) A method for detecting defects in an optical fiber, the method comprising:
  - obtaining an image of the optical fiber;
  - separating a portion of the image for processing;
  - determining a blob threshold based on intensities in the portion of the image, to isolate a blob in the portion of the image;
  - adjusting characteristics of the portion of the image to enhance detection of the blob;
  - ~~identifying~~ detecting the blob in the image referring to the determined blob threshold;
  - comparing a characteristic of the blob to blob criteria; and;
  - failing the optical fiber if the blob criteria is not met.
2. (Currently Amended) The method of claim 1, wherein the image includes an object and a background, the portion of the image corresponding to the object.
3. (Currently Amended) The method of claim 2, wherein the object comprises core and cladding of the optical fiber.

4. (Currently Amended) The method of claim 1, wherein the image includes an object and a background, the portion of the image corresponding to the background.

5. (Currently Amended) The method of claim 4, wherein the background comprises supporting structure for the optical fiber.

6. (Currently Amended) The method of claim 1, wherein said determining the blob threshold includes determining a mean intensity of the portion of the image, the blob threshold being based on the mean intensity.

7. (Currently Amended) The method of claim 6, wherein the blob threshold is determined as

$$T_B = \alpha \times I + \beta$$

where  $T_B$  is the blob threshold,  $I$  is the mean intensity of the portion of the image and  $\alpha$  and  $\beta$  are scaling constants.

8. (Currently Amended) The method of claim 1, wherein said adjusting characteristics includes adjusting brightness of the portion of the image.

9. (Currently Amended) The method of claim 1, wherein said adjusting

characteristics includes adjusting contrast of the portion of the image.

10. (Currently Amended) The method of claim 1, wherein said adjusting characteristics includes adjusting brightness of the portion of the image to a low value and adjusting contrast of the portion of the image to a medium value.

11. (Currently Amended) The method of claim 1, wherein the characteristic of the blob is blob intensity, the blob criteria including blob intensity.

12. (Currently Amended) The method of claim 1, further comprising establishing inspection zones in the image, the blob criteria varying for each inspection zone.

13. (Currently Amended) A storage medium encoded with machine-readable computer program code for detecting defects in an optical fiber, the storage medium including instructions for causing a computer to implement a method comprising:

obtaining an image of the optical fiber;

separating a portion of the image for processing;

determining a blob threshold based on intensities in the portion of the image, to isolate a blob in the portion of the image;

adjusting characteristics of the portion of the image to enhance detection of the blob;

~~identifying detecting the blob in the image referring to the determined blob threshold;~~

comparing a characteristic of the blob to blob criteria; and;

failing the optical fiber if the blob criteria is not met.

14. (Currently Amended) The storage medium of claim 13, wherein the image includes an object and a background, the portion of the image corresponding to the object.

15. (Currently Amended) The storage medium of claim 14, wherein the object comprises core and cladding of the optical fiber.

16. (Currently Amended) The storage medium of claim 13, wherein the image includes an object and a background, the portion of the image corresponding to the background.

17. (Currently Amended) The storage medium of claim 16, wherein the background comprises supporting structure for the optical fiber.

18. (Currently Amended) The storage medium of claim 13, wherein said determining the blob threshold includes determining a mean intensity of the portion of the image, the blob threshold being based on the mean intensity.

19. (Currently Amended) The storage medium of claim 18, wherein the blob threshold is determined as

$$T_B = \alpha \times I + \beta$$

where  $T_B$  is the blob threshold,  $I$  is the mean intensity of the portion of the image and  $\alpha$  and  $\beta$  are scaling constants.

20. (Currently Amended) The storage medium of claim 13, wherein said adjusting characteristics includes adjusting brightness of the portion of the image.

21. (Currently Amended) The storage medium of claim 13, wherein said adjusting characteristics includes adjusting contrast of the portion of the image.

22. (Currently Amended) The storage medium of claim 13, wherein said adjusting characteristics includes adjusting brightness of the portion of the

image to a low value and adjusting contrast of the portion of the image to a medium value.

23. (Currently Amended) The storage medium of claim 13, wherein the characteristic of the blob is blob intensity, the blob criteria including blob intensity.

24. (Currently Amended) The storage medium of claim 13, further comprising establishing inspection zones in the image, the blob criteria varying for each inspection zone.